

# **NOTIFICATION OF ADDENDUM**

## **ADDENDUM NO. 1**

**DATED 7/06/2012**

<b>Control</b>	<b>0047-09-027</b>
<b>Project</b>	<b>STP 2012(564)</b>
<b>Highway</b>	<b>SH 5</b>
<b>County</b>	<b>COLLIN</b>

Ladies/Gentlemen:

Attached please find an addendum on the above captioned project. Included in the attachment is an addendum notification which details the changes and the respective proposal pages which were added and/or changed.

Except for new bid insert pages, it is unnecessary to return any of the pages attached.

Bid insert pages must be returned with the bid proposal submitted to the Department, unless your firm is submitting a bid using a computer print out. The computer print out must be changed to reflect the new bid item information.

Contractors and material suppliers, etc. who have previously been furnished informational proposals are not being furnished a copy of the addendum. If you have a subcontractor on the above project, please advise them of this addendum. Acknowledgment of this addendum is not requested if your company has been issued a proposal stamped "This Proposal Issued for Informational Purposes."

You are required to acknowledge receipt of this addendum on the Addendum Acknowledgement form contained in your bid proposal by placing a mark in the box next to the respective addendum.

Failure to Acknowledge receipt of this addendum in your bid proposal will result in your bid not being read.

SUBJECT: PLANS AND PROPOSAL ADDENDUMS

PROJECT: STP 2012(564)

CONTROL: 0047-09-027

COUNTY: COLLIN

LETTING: 07/11/2012

REFERENCE NO: 0705

**PROPOSAL ADDENDUMS**

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\_ PROPOSAL COVER

X BID INSERTS (SH. NO.: 1-7, 2-7, 5-7, 6-7, 7-7 )

X GENERAL NOTES (SH. NO.: E )

X SPEC LIST (SH. NO.: 1-3 THRU 3-3 )

X SPECIAL PROVISIONS:

ADDED: 008---009, 008---069, 4116--001, 4118--001

DELETED: 008---006

X SPECIAL SPECIFICATIONS:

ADDED: 7522

DELETED:

X OTHER: SEE CHANGES BELOW

DESCRIPTION OF ABOVE CHANGES

(INCLUDING PLANS SHEET CHANGES)

BID INSERTS: SHEET 1-7 - REVISED QUANTITIES FOR ITEMS 110-2001 & 132-2006.  
SHEET 2-7 - REVISED QUANTITY FOR ITEM 260-2002.  
SHEET 5-7 - DELETED ITEM 506-2010.  
SHEET 6-7 - ADDED ITEM 556-2010.  
SHEET 7-7 - ADDED SPECIAL PROVISION 001 TO ITEMS 4116 & 4118.

GENERAL NOTES: SHEET E - ADDED GENERAL NOTE TO ITEM 8.

SPEC LIST: SHEET 1-3 -ADDED REFERENCE ITEM 7522 TO ITEM 423.  
SHEET 2-3 - DELETED SP(008---006). ADDED SP(008---009) AND  
SP(008---069).  
SHEET 3-3 - ADDED SP(4116--001) AND (4118--001).  
ADDED SS ITEM 7522.

PLAN SHEETS: SHEETS 8B, 9, 9A, 10, 12 REVISED DUE TO ABOVE CHANGES.

ALT	ITEM-CODE			UNIT BID PRICE ONLY. WRITTEN IN WORDS	UNIT	APPROX QUANTITIES	DEPT USE ONLY
	ITEM NO	DESC CODE	S.P. NO.				
	100	2002	002	PREPARING ROW  DOLLARS and CENTS	STA	21.500	1
	104	2001		REMOVING CONC (PAV)  DOLLARS and CENTS	SY	6,479.000	2
	104	2017		REMOVING CONC (DRIVEWAYS)  DOLLARS and CENTS	SY	704.000	3
	105	2021		REMOVING STAB BASE AND ASPH PAV (0-4")  DOLLARS and CENTS	SY	84.000	4
	105	2023		REMOVING STAB BASE AND ASPH PAV (5")  DOLLARS and CENTS	SY	6,479.000	5
	110	2001		EXCAVATION (ROADWAY)  DOLLARS and CENTS	CY	47,461.000	6
	132	2006		EMBANKMENT (FINAL)(DENS CONT)(TY C)  DOLLARS and CENTS	CY	895.000	7
	161	2002	006	COMPOST MANUF TOPSOIL (BOS) (4")  DOLLARS and CENTS	SY	25,497.000	8
	164	2027	002	CELL FBR MLCH SEED(PERM)(URBAN)(CLAY)  DOLLARS and CENTS	SY	25,497.000	9
	164	2041	002	DRILL SEEDING (TEMP) (WARM)  DOLLARS and CENTS	SY	4,634.000	10

ALT	ITEM-CODE			UNIT BID PRICE ONLY. WRITTEN IN WORDS	UNIT	APPROX QUANTITIES	DEPT USE ONLY
	ITEM NO	DESC CODE	S.P. NO.				
	164	2043	002	DRILL SEEDING (TEMP) (COOL) DOLLARS and CENTS	SY	4,634.000	11
	168	2001		VEGETATIVE WATERING DOLLARS and CENTS	MG	1,112.500	12
	169	2001	002	SOIL RETENTION BLANKETS (CL 1) (TY A) DOLLARS and CENTS	SY	25,497.000	13
	247	2248	033	FL BS (CMP IN PL)(TY D GR 4)(8") DOLLARS and CENTS	SY	10,662.000	14
	260	2002	003	LIME (HYDRATED LIME (SLURRY)) DOLLARS and CENTS	TON	209.900	15
	260	2009	003	LIME TRT (EXST MATL)(10") DOLLARS and CENTS	SY	7,196.000	16
	310	2005		PRIME COAT (MC-30 OR AE-P) DOLLARS and CENTS	GAL	2,666.000	17
	400	2005		CEM STABIL BKFL DOLLARS and CENTS	CY	8.000	18
	400	2006		CUT & RESTORING PAV DOLLARS and CENTS	SY	149.000	19
	402	2001		TRENCH EXCAVATION PROTECTION DOLLARS and CENTS	LF	2,275.000	20
	403	2001		TEMPORARY SPL SHORING DOLLARS and CENTS	SF	778.000	21

ALT	ITEM-CODE			UNIT BID PRICE ONLY. WRITTEN IN WORDS	UNIT	APPROX QUANTITIES	DEPT USE ONLY
	ITEM NO	DESC CODE	S.P. NO.				
	416	2004		DRILL SHAFT (36 IN)  DOLLARS and CENTS	LF	890.000	22
	416	2005		DRILL SHAFT (42 IN)  DOLLARS and CENTS	LF	2,128.000	23
	423	2007		RETAINING WALL (SPREAD FOOTING)  DOLLARS and CENTS	SF	800.000	24
	423	2009		RETAINING WALL (SOIL NAILED)(FACIA)  DOLLARS and CENTS	SF	16,050.000	25
	423	2011		RETAINING WALL (DRILL SHAFT)(FACIA)  DOLLARS and CENTS	SF	5,789.000	26
	432	2001		RIPRAP (CONC)(4 IN)  DOLLARS and CENTS	CY	258.000	27
	432	2033		RIPRAP (STONE COMMON)(DRY)(12 IN)  DOLLARS and CENTS	CY	32.000	28
	432	2048		RIPRAP (CONC)(FLUME)  DOLLARS and CENTS	CY	138.900	29
	450	2025	001	RAIL (TY PR1)  DOLLARS and CENTS	LF	1,680.000	30
	462	2011	015	CONC BOX CULV (6 FT X 4 FT)  DOLLARS and CENTS	LF	60.000	31
	464	2003	006	RC PIPE (CL III)(18 IN)  DOLLARS and CENTS	LF	144.000	32

ALT	ITEM-CODE			UNIT BID PRICE ONLY. WRITTEN IN WORDS	UNIT	APPROX QUANTITIES	DEPT USE ONLY
	ITEM NO	DESC CODE	S.P. NO.				
	464	2005	006	RC PIPE (CL III)(24 IN)  DOLLARS and CENTS	LF	657.000	33
	464	2009	006	RC PIPE (CL III)(36 IN)  DOLLARS and CENTS	LF	951.000	34
	464	2028	006	RC PIPE (CL IV)(48 IN)  DOLLARS and CENTS	LF	486.000	35
	465	2005	001	MANH (COMPL)(TY M)  DOLLARS and CENTS	EA	1.000	36
	465	2006	001	MANH (COMPL)(JUNCT BOX)(TY M)  DOLLARS and CENTS	EA	3.000	37
	465	2104	001	INLET EXT  DOLLARS and CENTS	EA	24.000	38
	465	2500	001	INLET(COMPL)(DROP)(TY C)(3-GRATE)  DOLLARS and CENTS	EA	7.000	39
	465	2587	001	CURB & GRATE INLET TYPE I  DOLLARS and CENTS	EA	16.000	40
	466	2054		WINGWALL (PW)(HW=10 FT)  DOLLARS and CENTS	EA	1.000	41
	466	2055		WINGWALL (PW)(HW=11 FT)  DOLLARS and CENTS	EA	1.000	42
	466	2071		HEADWALL (CH-FW-0)(DIA= 48 IN)  DOLLARS and CENTS	EA	1.000	43

ALT	ITEM-CODE			UNIT BID PRICE ONLY. WRITTEN IN WORDS	UNIT	APPROX QUANTITIES	DEPT USE ONLY
	ITEM NO	DESC CODE	S.P. NO.				
	496	2001		REMOV STR (BOX CULVERT)  DOLLARS CENTS and	EA	1.000	44
	496	2004		REMOV STR (SET)  DOLLARS CENTS and	EA	1.000	45
	496	2016		REMOV STR (PIPE)  DOLLARS CENTS and	EA	1.000	46
	496	2017		REMOV STR (ABUTMENT)  DOLLARS CENTS and	EA	1.000	47
	500	2001	005	MOBILIZATION  DOLLARS CENTS and	LS	1.000	48
	502	2001	033	BARRICADES, SIGNS AND TRAFFIC HAN- DLING  DOLLARS CENTS and	MO	9.000	49
	506	2002	010	ROCK FILTER DAMS (INSTALL) (TY 2)  DOLLARS CENTS and	LF	330.000	50
	506	2009	010	ROCK FILTER DAMS (REMOVE)  DOLLARS CENTS and	LF	330.000	51
	506	2041	010	TEMP SDMT CONT FENCE (INLET PROTECT)  DOLLARS CENTS and	LF	320.000	52
	508	2002		CONSTRUCTING DETOURS  DOLLARS CENTS and	SY	543.000	53

ALT	ITEM-CODE			UNIT BID PRICE ONLY. WRITTEN IN WORDS	UNIT	APPROX QUANTITIES	DEPT USE ONLY
	ITEM NO	DESC CODE	S.P. NO.				
	529	2004		CONC CURB & GUTTER (TY II) DOLLARS and CENTS	LF	2,859.000	54
	530	2038		DRIVEWAYS (CONC)(HES) DOLLARS and CENTS	SY	895.000	55
	556	2010		PIPE UNDERDRAINS (TY 5,6,7 OR 8)(6") DOLLARS and CENTS	LF	2,331.000	56
	560	2015	001	MAILBOX INSTALL-S(TWW-POST)TY 4 FND-TB DOLLARS and CENTS	EA	1.000	57
	644	2001		IN SM RD SN SUP&AM TY10BWG(1)SA(P) DOLLARS and CENTS	EA	4.000	58
	658	2316		INSTL OM ASSM (OM-2Z)(FLX)GND DOLLARS and CENTS	EA	2.000	59
	662	2004		WK ZN PAV MRK NON-REMOV (W) 4" (SLD) DOLLARS and CENTS	LF	273.000	60
	662	2016		WK ZN PAV MRK NON-REMOV (W) 24" (SLD) DOLLARS and CENTS	LF	55.000	61
	662	2032		WK ZN PAV MRK NON-REMOV (Y) 4" (SLD) DOLLARS and CENTS	LF	204.000	62
	666	2012		REFL PAV MRK TY I (W) 4" (SLD)(100MIL) DOLLARS and CENTS	LF	4,319.000	63



ALT	ITEM-CODE			UNIT BID PRICE ONLY. WRITTEN IN WORDS	UNIT	APPROX QUANTITIES	DEPT USE ONLY
	ITEM NO	DESC CODE	S.P. NO.				
	666	2048		REFL PAV MRK TY I (W) 24"(SLD)(100MIL) DOLLARS and CENTS	LF	12.000	64
	666	2111		REFL PAV MRK TY I (Y) 4" (SLD)(100MIL) DOLLARS and CENTS	LF	4,319.000	65
	672	2015	034	REFL PAV MRKR TY II-A-A DOLLARS and CENTS	EA	29.000	66
	3224	2008		D-GR HMA(QCQA) TY-B PG64-22 DOLLARS and CENTS	TON	3,243.000	67
	3224	2027		D-GR HMA(QCQA) TY-C SAC-B PG70-22 DOLLARS and CENTS	TON	1,008.000	68
	4116	2001	001	SOIL NAIL ANCHORS DOLLARS and CENTS	LF	13,296.000	69
	4118	2001	001	ROCK NAIL ANCHORS DOLLARS and CENTS	LF	4,340.000	70
	6834	2002		PORTABLE CHANGEABLE MESSAGE SIGN DOLLARS and CENTS	EA	2.000	71

**County: COLLIN**

**Highway: SH 5**

**Control: 0047-09-027**

**GENERAL NOTES:**

**SW3P RESPONSIBILITIES**

**TxDOT Area of Responsibility**

Responsible for the area defined by the limits of the subject project, except for those areas utilized and operated by the Contractor. These areas include, though are not limited to, areas used for field offices, equipment and/or material storage, and concrete or asphalt plants.

**TxDOT Operational Responsibility**

Responsible for seeking coverage under the TPDES Construction General Permit (CGP) and operating the project within the requirements of the CGP for discharging storm water from the subject project and to notify MS4 permit holders of the intent to discharge storm water.

File a Notice of Termination with TCEQ upon completion of the project when the exposed areas have been stabilized with a vegetative cover of at least 70%.

**Contractor Area of Responsibility**

Responsible for all areas under their direct operational control which includes, though not limited to, areas used for field offices, equipment and/or material storage, and concrete or asphalt plants. These areas may be located on or off the subject project's R.O.W.

**Contractor Operational Responsibility**

Responsible for seeking coverage under the TPDES Construction General Permit (CGP) and adhering to all requirements of the permit for discharging storm water from the areas under their operational control. Perform regular inspections, prepare a written report of deficiencies, and repair deficiencies within the time frame set forth by the permit. File a Notice of Termination with TCEQ upon completion of the project when the exposed areas have been stabilized with a vegetative cover of at least 70%.

Responsible under contractual obligations to TxDOT to install, clean, repair, replace or remove sediment and erosion control devices as indicated on TxDOT's Inspection Reports, or as required by daily construction practices, within the time frame set forth by the permit.

**SPECIFICATION DATA**

<b>Table 1: Soil Constants Requirements</b>				
Item	Description	Plasticity Index		Note
		Max	Min	
132	Embk(DC)(Type C)	40	8	1

Note 1: Material excavated from the project must meet the PI requirements when used in the top 10 feet of embankment that supports the pavement structure or other locations shown in the plans. Do not use shale and obtain approval to incorporate shaley clay produced by the construction project.

<b>Table 2: Basis of Estimate for Permanent Construction</b>						
Item	Description	Thickness	Rate		Quantity	
164	Cell Fiber Mulch Seed (Perm) (U) (C)	N/A	N/A	N/A	25,497	SY
166 *	Fertilizer (12-6-6)	N/A	500	Lb/Ac	1.3	Ton
168	Vegetative Watering (8 weeks)	N/A	4	Gal/(Wk*Sy)	815.9	Mg
247	Flexible Base	8"	1.55	Ton/CY	5509	TON
310	Prime Coat (MC-30)	n/a	0.20	Gal/SY	2,666	Gal
3224	Hot Mix Asphalt (Ty B)	6"	110	Lb/(SY*In)	3243	Ton
3224	Hot Mix Asphalt (Ty C)	2"	110	Lb/(SY*In)	1008	Ton
* For contractor's information only						
Note: (1) Base material weight based on 1.50 Ton/CY (dry- compacted)						
(2) Asphalt weight based on 110 Lb/(SY*In)						
(3) Subgrade weight based on 1.5 Ton/CY (dry- compacted)						

Table 3: Basis of Estimate for Temporary Erosion Control Items				
Item	Description	Rate		Quantity
164	Drill Seeding (Temp) (Warm)	N/A	N/A	4,634 SY
164	Drill Seeding (Temp) (Cool)	N/A	N/A	4,634 SY
166*	Fertilizer (12-6-6)	500	Lb/Ac	0.24 Ton
166*	Fertilizer (12-6-6)	500	Lb/Ac	0.24 Ton
168	Vegetative Watering (8 weeks)	4	Gal/(Wk*Sy)	148.3 Mg
168	Vegetative Watering (8 weeks)	4	Gal/(Wk*Sy)	148.3 Mg
*For contractor's information only				

Table 4: Basis of Estimate for Finish Colors (Items 427 & 446) <sup>1</sup>		
Element	Color	Specification Number <sup>2</sup>
Retaining wall	Dark beige	30475
Retaining wall coping	Light beige	33617

1. Unless otherwise noted, it is the intent of these plans that all exposed surfaces (concrete or steel) of bridges, retaining walls, concrete traffic railing and concrete traffic barrier be given a tinted coating as shown or as directed. Such coating shall meet the applicable provisions of Item 427 or Item 446.
2. Federal Standard 595b colors.

## GENERAL

### Protection of Fiber Optic Cable Systems

The State and/or its Contractor should provide five (5) days notice before any work is performed by calling MCI at 1-800-MCI-WORK (624-9675) and DIG TESS at 1-800-344-8377 to determine if fiber optic is buried anywhere on the DART property to be used by the State.

Access will be provided to all business and residences at all times. Materials, labor and maintenance for these temporary accesses will not be paid for directly, but will be considered subsidiary to the various bid items.

The construction, operation and maintenance of the proposed project will be consistent with the state implementation plan as prepared by the Texas Commission on Environmental Quality.

**County: COLLIN****Highway: SH 5****Control: 0047-09-027**

The disturbed area for this project, as shown on the plans is 2.87 acres. However, the Total Disturbed Area (TDA) will establish the required authorization for storm water discharges. The TDA of this project will be determined by the sum of the disturbed area in all project locations in the contract, and all disturbed area on all Project-Specific Locations (PSL) located in the project limits and/or within 1 mile of the project limits. The department will obtain an authorization to discharge storm water from the Texas Commission on Environmental Quality (TCEQ) for the construction site as shown on the plans, according to the TDA of the project. The Contractor will obtain any required authorization from the TCEQ for the discharge of storm water from any PSL for construction support activities on or off of the project row according to the TDA of the project. When the TDA for the project exceeds 1 acre, provide a copy of the appropriate application of permit (NOI, or Construction Site Notice) to the Engineer, for any PSL located in the project limits or within 1 mile of the project limits. Follow the directives and adhere to all requirements set forth in the TCEQ, Texas Pollution Discharge Elimination System, Construction General Permit (TPDES, CGP).

Prior to contract letting, bidders may request electronic earthwork information by email.

Email: Barry.Heard @ txdot.gov

Earthwork files will be provided by email or by using TxDOT's Dropbox FTP Service.

Bidders may also obtain a free computer diskette that contains earthwork information from the Engineer's office. Paper copies of cross-sections may be produced by using the provided free diskette at the bidders' expense and at copying companies. This data is for non-construction purposes only and it is the responsibility of the prospective bidder to validate the enclosed data with appropriate plans, specifications and estimate for the project(s).

Leave all right of way areas undisturbed until actual construction is to be performed in said areas.

Use established industry and utility safety practices to erect poles, luminaries, signs or structures near any overhead or underground utility. Consult with the appropriate utility company prior to beginning such work.

Underground utilities owned by the Texas Department of Transportation may be present within the Right-Of-Way on this project. For signal, illumination, surveillance, and communications & control maintained by TxDOT, call the TxDOT Traffic Signal Office (214-320-6682) for locates a minimum of 48 hours in advance of excavation. For irrigation systems, call TxDOT Maintenance Landscape Office (214-320-6205) for locates a minimum of 48 hours in advance of excavation. If city or town owned irrigation facilities are present, call the appropriate department of the local city or town a minimum of 48 hours in advance of excavation. The Contractor is liable for all damages incurred to the above mentioned utilities when working without having the utilities located prior to excavation.

For the project to be deemed complete, permanently stabilize all unpaved disturbed areas of the project with a vegetative cover at a minimum of 70% density for the control of erosion.

Repair or replace any structures and utilities that might have been damaged by negligence or a failure to have utility locates performed.

**County: COLLIN**

**Highway: SH 5**

**Control: 0047-09-027**

Perform all electrical work in accordance with the National Electrical Code and Texas Department of Transportation Specifications.

Consult with appropriate electric company representatives according to their respective area to coordinate electrical services installations.

Meet weekly with the Engineer to notify him or her of planned work for the upcoming week.

Provide the Engineer with a daily work schedule of planned work.

Submit pre-letting questions, by email only, to the attention of Area Engineer or Area Engineer's representative.

Email: Barry.Heard@txdot.gov

Answers will be provided by email.

An electronic file containing pre-letting questions and TxDOT answers will be provided upon email request.

Material On Hand (MOH) will not be used in calculating partial payments for Mobilization.

Provide the Engineer with a copy of all DBE subcontractor agreements prior to commencing work.

**Item 8:**

This Project will be a Five-Day Workweek in accordance with Article 8.3.A.1.

Incentive provisions for early contract completion, based upon contract liquidated damages will apply to this project.

**Item 100:**

Remove the existing roadway small signs, delineators and object markers as shown on the plans, or as directed, during construction within the right of way. Small sign, delineator and object marker removals are subsidiary to this Item.

Remove any and all remaining items not listed and paid for under other items of the contract, including but not limited to: old/abandoned utilities, driveways, fences, trees, miscellaneous structures, house slabs, parking lots and other miscellaneous items as encountered.

The limits of preparing right of way will be measured from Sta. 391+00 to Sta. 412+50 along the centerline of construction.

**Item 104:**

In those areas where the pavement is not to be overlaid, provide a smooth surface after the curb removal. Planing or grinding is considered an acceptable method at these locations. Measurement and payment is in accordance with this item.

Sawing of concrete is not paid for directly, but is considered subsidiary to this item.

**County: COLLIN**

**Highway: SH 5**

**Control: 0047-09-027**

**Items 105, 251, 305, and 354:**

Saw existing asphalt along neat lines where portions are to be left in place temporarily or permanently. Sawing is not paid for directly, but is subsidiary to this item.

**Item 105:**

Take possession of recycled asphalt pavement from the project and recycle the material.

Properly dispose of unsalvageable material at your own expense.

**Item 110:**

Scarify and loosen the excavated areas, unpaved surface areas, except rock, to a depth of at least 8 inches and compact in accordance with the specifications.

Perform the following test by an approved laboratory on excavated soils when used for roadway embankment: 1- Tex-145-E (Sulfate Content in Soils), 2- Tex-106-E (Plasticity Index). Provide the above-mentioned test results on sources outside of the right of way at no expense to the department. Contact the Engineer for a list of approved laboratories. Notify the Engineer 72 hours before sampling and testing material. Perform split-sample verification testing with the engineer when directed. The Engineer will sample and test soils produced by the construction project for specification requirements or material sources specified in the plans.

Excavated shale is not an acceptable material for embankment.

**Items 110 and 132:**

Excavation and embankment for driveways, sleeper slabs, alleys and intersections will not be paid for directly, but will be considered subsidiary to these items.

**Items 110, 132 and 164:**

Perform vertical tracking on slopes to temporarily stabilize soil. Provide equipment with a track undercarriage capable of producing a linear soil impression measuring at least 12 inches in length by 2 to 4 inches in width by ½ to 2 inches in depth. Do not exceed 12 inches between track cleats. Install continuous linear track impressions where the minimum 12 inches in length impressions is perpendicular to the direction of water flow. Vertical tracking will not be paid for directly, but considered subsidiary to these items.

**County: COLLIN****Highway: SH 5****Control: 0047-09-027****Item 132:**

Earth embankment Type C, is mainly composed of material other than shale. Furnish material that is free from vegetation or other objectionable material and that conforms to the requirements of Table 1 (Sheet B). If necessary, add lime slurry in accordance with Item 260, "Lime Treatment (Road-Mixed)" in order to meet these requirements. Use Tex-121-E, figure 1, page 5 to calculate the amount of lime required. Furnish material containing sulfate at or below the threshold of 5000 parts per million (ppm). For material with sulfate levels greater than 3000 ppm, allow the mixture to mellow for at least three days, or as directed. Test soil for sulfate levels in accordance with Tex-145-E. Use an approved laboratory to perform tests for sulfate and plasticity index and provide results on sources outside the right of way to the department. Contact the Engineer for a list of approved laboratories. Notify the Engineer 48 hours before sampling and testing material. Perform split-sample verification testing with the Engineer when directed. The Engineer will sample and test material produced by the construction project for specification requirements or material sources specified in the plans. The Engineer will test material placed or excavated to a depth of one foot below and laterally to one foot outside the proposed treatment limit. Lime treatment and testing of this material will not be paid for directly, but will be considered subsidiary to this item.

Do not use shaley clays in embankment unless approved in writing.

Use embankment material Type C2 described in Table 1 "Soil Constants Requirements" for embankments behind bridge abutments to the extent of the bridge approach slabs, and other embankments enclosed by an abutment and / or retaining walls

**Item 169:**

Hydraulically apply Flexterra FGM or CocoFlex ET-FGM, or install North American Green SC150 or Landlok CS2 for erosion control on the specified slopes or areas in the construction plan.

Water for application, seeding, labor, equipment, tools, supplies, materials, fertilizer and incidentals will not be paid for directly but will be subsidiary to this Item.

Apply as required per manufacturer's recommendations.

Use Tables under Item 164 to determine type of seeds to be used.



County: COLLIN

Highway: SH 5

Control: 0047-09-027

**Item 247:**

Provide Type D, Grade 4 Flexible Base that meets the following requirements:

<b>Table 5: Percent Retained on Sieve</b>				
<b>1-3/4"</b>	<b>7/8"</b>	<b>3/8"</b>	<b>No. 4</b>	<b>No. 40</b>
0	10-35	30-50	45-65	70-85

Liquid Limit, % max:	40
Linear bar shrinkage, % max:	6.0
Wet ball mill, % max:	40
Wet ball mill, % max increase passing the no. 40 sieve:	20
Clay balls, % max:	1.0

Compact to at least 98% of the maximum density determined by Tex-113-E. Construct uniform layer thickness of 12 inches or less with the required density and moisture content. Triaxial class is required for Grade 1 and 2. Minimum PI is equal to three (3) for all grades.

The use of contractor-owned recycled crushed concrete is allowed provided it meets the Departmental Material Specification, DMS-11000 requirements.

**Item 260:**

Furnish and distribute MS-2 smoothly and evenly at the rate of 0.20 gallons per square yard to cure lime, as directed.

Provide Commercial Lime Slurry and apply lime by slurry placement method.

Do not use MC-30 on base courses placed between April 16 and September 15.

**Item 320:**

Material Transfer Device is required.

The use of windrow pick-up equipment is allowed except on the first course of roadway material placed over the subgrade.

**Item 400:**

Structural Excavation is not paid for directly but is considered subsidiary to pertinent Items.

When placing concrete storm drain pipe on slopes of greater than 10 percent, provide cement stabilized backfill to a depth shown on the plans. The aggregate shall conform to the requirements of Article 421.2.E.2.

**County: COLLIN**

**Highway: SH 5**

**Control: 0047-09-027**

**Item 420:**

Apply an ordinary surface finish to all concrete surfaces within 30 days after form removal.

**Item 421:**

Furnish mix designs to the Engineer in a format compatible to the latest version of the Department's Construction Management System (Site Manager). Mix Design templates will be provided by the Engineer.

Provide High Performance Concrete (HPC) of the class specified for the following bridge components: approach slabs, abutments, bents, columns, slabs, sidewalks and medians.

Provide High Performance Concrete (HPC) of the class specified for all railing and permanent concrete traffic barrier placed on bridges or approach slabs. HPC concrete is not required for portions of rail or concrete traffic barrier not located on a bridge.

Provide sulfate resistant concrete for box culverts and all drilled shafts. At the contractor's option, a sulfate resistant high performance concrete may be used; however, high performance concrete is not considered sulfate resistant concrete when Class C fly ash and Type I cement is used in the mix design.

Maturity meters may be used for temperature gradient determination in mass concrete pours.

Strength evaluation using maturity testing, Tex-426-A, may be used for all concrete elements except drilled shafts.

Provide a digital hydraulic compression testing Machine and accessories. The machine shall have a minimum testing range of 2500 pounds force to 250,000 pounds force with a hydraulic switching valve to allow for rapid advancing, hold, controlled advancing and rapid retracting. The machine shall have a load cell to measure compressive forces within the testing range and shall be calibrated and verified in accordance with ASTM latest version. The Machine can meet or exceed the following when approved by the Engineer:

ELE International ACCU-TEK250 Digital Compression Tester including accessories or Forney F-250EX Standard Compression Machine including accessories or TxDOT approved equal.

Air-entrain all cast-in-place concrete except for Class "B" and concrete used in drilled shafts. For structural concrete, if the air content is more than 1.5% below the required air, follow manufacturer recommendations to add the necessary approved air bags to increase the air content at the job site. Limit the adding of air bags in the field to one trial. For structural concrete in abutments, bents and columns do not reject the load of concrete due to low air content; accept concrete based on strength tests. Structural concrete in approach slabs, slabs, sidewalks, medians and rails shall meet the provisions of the specification. Precast structural members do not require air entrainment.

**County: COLLIN**

**Highway: SH 5**

**Control: 0047-09-027**

**Item 423:**

All retaining walls will have a uniform texture and appearance.

Unless otherwise noted in the plans, the top of the leveling pad is located 2 feet below the proposed ground.

Square foot surface area of retaining wall is measured from the top of retaining wall to the top of the leveling pad.

Supply drainage aggregate meeting the requirements of this item for use as filter material with the retaining wall.

Submit design calculations supporting the details necessary to incorporate coping, railing, inlets, drainage, electrical conduits and any additional necessary features.

Use the same fascia pattern throughout the entire project, including cast in place full height retaining walls or retaining wall type abutments.

Submit detailed drawings depicting the patterns and matching of precast with cast-in-place for approval.

At contractor's expense, repair all damage to the precast units (such as chips) as required to match the fascia pattern.

**Items 423 and 427:**

Unless otherwise noted on the plans, provide a stone finish on all retaining walls. Supply form liners providing a finish similar to that derived from pattern 330 "Ashlar Stone" by Greenstreak or Pattern 17002 "Austin Ashlar" by Fitzgerald or equal. Do not exceed a maximum pattern depth of 1 ¼ inches.

Retaining wall colors are shown elsewhere in the plans.

**Item 427:**

Finish concrete structures surface area I with an opaque sealer of the color(s) shown elsewhere in the plans in accordance Item 427.

Apply a 4-SF sample of each color on the project surfaces for approval. Adjust color as required by Engineer to compensate for surroundings and natural lighting conditions on the project site.

Ensure that surfaces are free of weak surface material, curing compounds and other surface contaminants prior to coating.

**County: COLLIN**

**Highway: SH 5**

**Control: 0047-09-027**

FORM LINER FINISHES: Place architectural concrete treatments as shown. Placement is subsidiary to this item.

Provide form liners that release without leaving pieces of liner material on the concrete and without pulling or breaking concrete from the textured surface. Provide form release agents as recommended by the manufacturer. Replace form liners as directed that have become damaged or worn. Replacement of form liners is considered incidental to the work and no additional compensation is provided.

Provide sample panels a minimum of ten days in advance of starting construction of the textured concrete surfaces. Construct sample panel(s) in accordance with Item 427.4.B.2.d "Form Liner Finish" using each type of approved form liner. Sample panels must meet the requirements of the plans and specifications and be approved before any construction form liners may be ordered, obtained or used. Provide panels having a textured portion at least 5'-0" by 5'-0" with a representative un-textured surrounding surface. If directed, construct and finish additional test panels until a satisfactory concrete surface texture is obtained.

The approved sample panel is the standard of comparison for the production concrete surface texture. If directed, build a new test panel to demonstrate acceptability of any proposed change in construction method.

Tool or replace areas requiring surface treatment that do not match their associated sample panels. Upon completion, tooled or replaced panels must match the associated sample panel. Tooling or replacement is at the contractor's expense.

**Item 442:**

Use temperature Zone 1 for CVN testing.

**Item 464:**

The concrete collars and the connections of pipes to existing or proposed concrete boxes or pipe will not be paid for directly but will be considered subsidiary to the various bid items.

At locations where storm drains dead-end, plug with a concrete plug of a thickness equal to 1 ½ inches per foot of diameter of pipe with a minimum thickness of 3 inches. The cost of the plugs shall be included in the unit price bid per foot of the various storm drain pipes.

**Item 471:**

Tackweld all inlet grates and manhole covers to the frame with two 1-inch welds. Supply unpainted cast iron inlet grate and frame and/or cast iron manhole frame and cover.

**County: COLLIN**

**Highway: SH 5**

**Control: 0047-09-027**

**Item 479:**

Accept ownership of inlet grates and manhole covers and properly dispose of them outside the limits of the right of way in accordance with federal, state and local regulations.

**Item 496:**

Concrete pavement removed as a result of removing the inlets will not be paid for directly but will be considered as subsidiary to Item 496.

Inlet grates and manhole covers become the property of the contractor for disposal.

**Item 502:**

Provide written proposed lane closure information by 1:00 pm on the business day prior to the proposed closures. Do not close lanes when this requirement is not met.

When excavation is required next to a pavement lane carrying traffic and the widening is not completed by the end of the work day, backfill against the edge of the pavement with at least a 3:1 slope using an acceptable material to support vehicular traffic. Carefully remove and dispose of this material when work resumes. Backfilling pavement edges, and the materials required for the work will be subsidiary to this item.

Place barricades and signs in locations that do not obstruct the sight distance of drivers entering the highway from driveways or side streets.

Provide rectangular shape (CW12-2P) Temporary Clearance Signs on all bridges where the existing vertical clearance has changed. Install Signs to the satisfaction of the Engineer prior to opening to traffic. Plywood sign blanks will have minimum dimensions of 84" X 12". Work performed and materials are subsidiary to this item.

Do not commence work on the road before sunrise. Do not operate or park any equipment/machinery closer than 30 feet from the traveled roadway after sunset unless authorized by the Engineer.

When moving unlicensed equipment on or across any pavement or public highways, protect the pavement from all damage using an acceptable method.

**Item 506:**

Take all practicable precautions to prevent debris from being discharged into the Waters of Texas or a designated wetland. Install Best Management Practices before demolition begins and maintain them during the demolition. Remove any debris or construction material that escapes containment devices and are discharged into the restricted areas, before the next rain event or within 24 hours of the discharge.

**County: COLLIN****Highway: SH 5****Control: 0047-09-027**

SW3P Maintenance Reports are made every seven calendar days. Make corrections as soon as possible before the next anticipated rain event or within seven calendar days after being able to enter the site to work for each BMP. A BMP site being "Too Wet to Work" is the only acceptable reason for not accomplishing the corrections with the seven calendar day time limit and should be thoroughly documented on Form 2118. If maintenance corrections are not made within this time frame then all work will cease, time charges will continue until SW3P is brought into compliance and is documented on Form 2118 after TxDOT review.

This in no way releases the contractor of liability for noncompliance.

Obtain from the Engineer a copy of the project's TPDES Storm Water Program and Notice of Intent or Construction Site Notice. Laminate the sheets and bond with adhesive to 36" X 48" plywood sign blanks. Ensure the sheets remain dry. Apply Type C Blue reflective sheeting as the background and add the text "SW3P" in 5" white lettering, centered at the top. Attach the signs to approved temporary mounts and locate at each of the project limits or as directed by the Engineer. SW3P Signs, maintenance, and repostings will be subsidiary to Item 502.

**Item 508:**

Testing of materials used in the construction of a temporary detour may be waived when approved by the Engineer.

**Item 529:**

Provide grooved joints at 10-foot intervals and  $\frac{3}{4}$  inch expansion joint material for doweled curb at the same locations as on the existing pavement.

For Curb and Gutter sections, provide grooved joints at 10-foot intervals and  $\frac{3}{4}$  inch expansion joint material at a maximum of 50-foot centers and at all radius points and inlets.

Curb and Gutter transitions will be paid for by the foot at the unit price for the corresponding curb or curb and gutter section.

Saw joints at the same location as on the existing pavement.

**Item 530:**

Provide Class "HES" concrete for concrete intersections and driveways listed or shown on the plans.

**Item 556:**

The unit price bid per linear foot of "pipe underdrain" shall include the cost of making connections to storm sewer lines.

**County: COLLIN**

**Highway: SH 5**

**Control: 0047-09-027**

Place bell and spigot type pipe with an open joint of approximately  $\frac{3}{4}$  inch.

In the event that Type 5 Underdrain Pipe is bid, make the connection as shown in the plans. The cost of making the connection will be considered subsidiary to this item.

The requirements for decantation of filter material are deleted for this project.

**Items 644, 647, and 650:**

Prior to taking elevations to determine lengths for fabrication of sign posts and/or sign support towers, obtain verification of all proposed locations.

Provide field galvanizing and metalizing equipment, as per Item 445, at all times and make repairs to galvanized surfaces according to the above specification item at intervals as directed.

All sign mounts shall have a clamp base system for all small roadside sign assemblies.

After sign supports with signs attached have been erected, wash individual units requiring cleaning with an approved cleaning solution to remove all grease, oil, dirt, smears, streaks, and other foreign particles.

Torque the anchor bolts for only the Exit Gore signs to 60 foot-pounds.

**Item 3224:**

Design for a target Laboratory-molded density of 97.0% when using the TGC (Tex-204-F, part I).

Use aggregate that meets the Surface Aggregate Classification (SAC) requirement of Class B.

Provide the Engineer the opportunity to witness all mixture design tests. The Engineer may require a retest if not given the opportunity to witness.

Dilution of tack is not allowed.

Provide PG binder 64-22 in Type B mixture.

Provide PG binder 70-22 in Type C mixture.

CONTROL : 0047-09-027  
PROJECT : STP 2012(564)  
HIGHWAY : SH 5  
COUNTY : COLLIN

TEXAS DEPARTMENT OF TRANSPORTATION

**GOVERNING SPECIFICATIONS AND SPECIAL PROVISIONS**

ALL SPECIFICATIONS AND SPECIAL PROVISIONS APPLICABLE TO THIS PROJECT  
ARE IDENTIFIED AS FOLLOWS:

STANDARD SPECIFICATIONS: ADOPTED BY THE TEXAS DEPARTMENT OF  
----- TRANSPORTATION JUNE 1, 2004.  
STANDARD SPECIFICATIONS ARE INCORPORATED  
INTO THE CONTRACT BY REFERENCE.

ITEMS 1 TO 9 INCL., GENERAL REQUIREMENTS AND COVENANTS  
ITEM 100 PREPARING RIGHT OF WAY  
ITEM 104 REMOVING CONCRETE  
ITEM 105 REMOVING STABILIZED BASE AND ASPHALT PAVEMENT  
ITEM 110 EXCAVATION (132)  
ITEM 132 EMBANKMENT (100)(204)(210)(216)(400)  
ITEM 161 COMPOST (160)  
ITEM 164 SEEDING FOR EROSION CONTROL (162)(166)(168)  
ITEM 168 VEGETATIVE WATERING  
ITEM 169 SOIL RETENTION BLANKETS  
ITEM 247 FLEXIBLE BASE (105)(204)(210)(216)(520)  
ITEM 260 LIME TREATMENT (ROAD-MIXED) (105)(132)(204)(210)(300)  
(310)(520)  
ITEM 310 PRIME COAT (300)(316)  
ITEM 400 EXCAVATION AND BACKFILL FOR STRUCTURES (132)(401)(420)  
(421)  
ITEM 402 TRENCH EXCAVATION PROTECTION  
ITEM 403 TEMPORARY SPECIAL SHORING (423)  
ITEM 416 DRILLED SHAFT FOUNDATIONS (420)(421)(440)(448)  
ITEM 423 RETAINING WALLS (110)(132)(400)(420)(421)(424)(440)(445)  
(458)(556)(7522)  
ITEM 432 RIPRAP (420)(421)(427)(440)  
ITEM 450 RAILING (420)(421)(424)(440)(441)(442)(445)(446)(448)  
(540)  
ITEM 462 CONCRETE BOX CULVERTS AND STORM DRAINS (400)(420)(421)  
(424)(440)(464)(476)  
ITEM 464 REINFORCED CONCRETE PIPE (400)(476)  
ITEM 465 MANHOLES AND INLETS (400)(420)(421)(440)(471)  
ITEM 466 HEADWALLS AND WINGWALLS (400)(420)(421)(430)(440)(464)  
ITEM 496 REMOVING STRUCTURES (430)



ITEM 500 MOBILIZATION  
 ITEM 502 BARRICADES, SIGNS, AND TRAFFIC HANDLING  
 ITEM 506 TEMPORARY EROSION, SEDIMENTATION, AND ENVIRONMENTAL  
 CONTROLS (432)(556)  
 ITEM 508 CONSTRUCTING DETOURS  
 ITEM 529 CONCRETE CURB, GUTTER, AND COMBINED CURB AND GUTTER (360)  
 (420)(421)(440)  
 ITEM 530 INTERSECTIONS, DRIVEWAYS, AND TURNOUTS (247)(260)(263)  
 (275)(276)(292)(316)(330)(334)(340)(360)(421)(440)  
 ITEM 556 PIPE UNDERDRAINS (402)(432)  
 ITEM 560 MAILBOX ASSEMBLIES  
 ITEM 644 SMALL ROADSIDE SIGN SUPPORTS AND ASSEMBLIES (421)(440)  
 (441)(442)(445)(634)(636)(643)(656)  
 ITEM 658 DELINEATOR AND OBJECT MARKER ASSEMBLIES (445)  
 ITEM 662 WORK ZONE PAVEMENT MARKINGS (666)(668)(672)(677)  
 ITEM 666 REFLECTORIZED PAVEMENT MARKINGS (316)(318)(662)(677)(678)  
 ITEM 672 RAISED PAVEMENT MARKERS (677)(678)

SPECIAL PROVISIONS: SPECIAL PROVISIONS WILL GOVERN AND TAKE  
 ----- PRECEDENCE OVER THE SPECIFICATIONS ENUMERATED  
 HEREON WHEREVER IN CONFLICT THEREWITH.

REQUIRED CONTRACT PROVISIONS, FEDERAL-AID CONSTRUCTION CONTRACTS  
 (FORM FHWA 1273, MARCH, 1994)

#### WAGE RATES

SPECIAL PROVISION "NOTICE TO ALL BIDDERS" (000---003)  
 SPECIAL PROVISION "NOTICE OF REQUIREMENT FOR AFFIRMATIVE ACTION TO  
 ENSURE EQUAL EMPLOYMENT OPPORTUNITY" (000---004)  
 SPECIAL PROVISION "STANDARD FEDERAL EQUAL EMPLOYMENT OPPORTUNITY  
 CONSTRUCTION CONTRACT SPECIFICATIONS" (000---006)  
 SPECIAL PROVISION "CERTIFICATION OF NONDISCRIMINATION IN EMPLOYMENT"  
 (000---009)  
 SPECIAL PROVISION "DEPARTMENT DIVISION MAILING AND PHYSICAL ADDRESS"  
 (000---011)  
 SPECIAL PROVISION "NOTICE OF CHANGES TO U.S. DEPARTMENT OF LABOR  
 REQUIRED PAYROLL INFORMATION (000--1483)  
 SPECIAL PROVISION "ON-THE-JOB TRAINING PROGRAM" (000--1676)  
 SPECIAL PROVISION "DISADVANTAGED BUSINESS ENTERPRISE IN FEDERAL AID  
 CONTRACTS (000--1966)  
 SPECIAL PROVISION "PARTNERING (000--2329)  
 SPECIAL PROVISION "SCHEDULE OF LIQUIDATED DAMAGES" (000--2332)  
 SPECIAL PROVISION "IMPORTANT NOTICE TO CONTRACTORS" (000--2484)  
 SPECIAL PROVISION TO ITEM 1 (001---015)  
 SPECIAL PROVISION TO ITEM 2 (002---017)  
 SPECIAL PROVISION TO ITEM 3 (003---033)  
 SPECIAL PROVISION TO ITEM 4 (004---017)  
 SPECIAL PROVISION TO ITEM 5 (005---004)  
 SPECIAL PROVISION TO ITEM 6 (006---030)  
 SPECIAL PROVISION TO ITEM 7 (007---918)  
 SPECIAL PROVISIONS TO ITEM 8 (008---009)(008---069)(008---119)  
 SPECIAL PROVISIONS TO ITEM 9 (009---009)(009---015)  
 SPECIAL PROVISION TO ITEM 100 (100---002)

SPECIAL PROVISION	TO ITEM	161	(161---006)
SPECIAL PROVISION	TO ITEM	164	(164---002)
SPECIAL PROVISION	TO ITEM	166	(166---001)
SPECIAL PROVISION	TO ITEM	169	(169---002)
SPECIAL PROVISION	TO ITEM	247	(247---033)
SPECIAL PROVISION	TO ITEM	260	(260---003)
SPECIAL PROVISION	TO ITEM	275	(275---003)
SPECIAL PROVISION	TO ITEM	300	(300---039)
SPECIAL PROVISION	TO ITEM	316	(316---016)
SPECIAL PROVISION	TO ITEM	318	(318---010)
SPECIAL PROVISION	TO ITEM	330	(330---001)
SPECIAL PROVISION	TO ITEM	340	(340---003)
SPECIAL PROVISION	TO ITEM	360	(360---003)
SPECIAL PROVISION	TO ITEM	420	(420---002)
SPECIAL PROVISION	TO ITEM	421	(421---035)
SPECIAL PROVISION	TO ITEM	424	(424---002)
SPECIAL PROVISION	TO ITEM	440	(440---006)
SPECIAL PROVISION	TO ITEM	441	(441---007)
SPECIAL PROVISION	TO ITEM	442	(442---016)
SPECIAL PROVISION	TO ITEM	450	(450---001)
SPECIAL PROVISION	TO ITEM	462	(462---015)
SPECIAL PROVISION	TO ITEM	464	(464---006)
SPECIAL PROVISION	TO ITEM	465	(465---001)
SPECIAL PROVISION	TO ITEM	476	(476---003)
SPECIAL PROVISION	TO ITEM	500	(500---005)
SPECIAL PROVISION	TO ITEM	502	(502---033)
SPECIAL PROVISION	TO ITEM	506	(506---010)
SPECIAL PROVISION	TO ITEM	560	(560---001)
SPECIAL PROVISION	TO ITEM	636	(636---014)
SPECIAL PROVISION	TO ITEM	643	(643---001)
SPECIAL PROVISION	TO ITEM	672	(672---034)
SPECIAL PROVISION	TO SPECIAL SPECIFICATION ITEM	4116	(4116--001)
SPECIAL PROVISION	TO SPECIAL SPECIFICATION ITEM	4118	(4118--001)

SPECIAL SPECIFICATIONS:

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ITEM 3224 DENSE-GRADED HOT-MIX ASPHALT (QC/QA) (300)(301)(320)(520)  
(585)  
ITEM 4116 SOIL NAIL ANCHORS (421)(440)  
ITEM 4118 ROCK NAIL ANCHORS (421)(440)  
ITEM 6834 PORTABLE CHANGEABLE MESSAGE SIGN  
ITEM 7522 PREFABRICATED SOIL DRAINAGE MATS

GENERAL: THE ABOVE-LISTED SPECIFICATION ITEMS ARE THOSE UNDER WHICH  
----- PAYMENT IS TO BE MADE. THESE, TOGETHER WITH SUCH OTHER  
PERTINENT ITEMS, IF ANY, AS MAY BE REFERRED TO IN THE ABOVE-  
LISTED SPECIFICATION ITEMS, AND INCLUDING THE SPECIAL  
PROVISIONS LISTED ABOVE, CONSTITUTE THE COMPLETE SPECIFI-  
CATIONS FOR THIS PROJECT.

**SPECIAL PROVISION**

**008---009**

**Prosecution and Progress**

For this project, Item 008, "Prosecution and Progress," of the Standard Specifications, is hereby amended with respect to the clauses cited below, and no other clauses or requirements of the Item are waived or changed hereby.

**Article 8.3. Computation of Contract Time for Completion.** The first sentence of the first paragraph is voided and replaced by the following:

Working day charges will begin 180 calendar days after the date of the written authorization to begin work, or the first day of construction activity if the work is initiated within the 180 day period.

## **SPECIAL PROVISION**

**008---069**

### **Prosecution and Progress**

For this project, Item 008, "Prosecution and Progress," of the Standard Specifications, is hereby amended with respect to the clauses cited below, and no other clauses or requirements of this Item are waived or changed hereby.

This Item is supplemented by the following:

**8.11. No Excuse Incentive Using Road-User Cost or Contract Administration Liquidated Damage Values and Disincentive Using Road-User Cost.** This special provision is for the application of incentives and disincentives as follows:

- no excuse incentives for early Contract completion using contract administration liquidated damage or substantial completion of work ahead of time using road-user cost values as basis and
- disincentives for late substantial completion of work using daily road-user costs.

Incentive provisions, based on contract administrative liquidated damages, will apply when shown on the plans. Incentive provisions, based on road-user cost, will apply when shown on the plans. Disincentive provisions, based on road-user cost, will apply when road-user cost incentive provisions are shown on the plans. The disincentive provisions, based on road-user cost, will also apply when shown separately on the plans (without an associated road-user cost incentive). Definitions are as follows:

- **Contract Completion** - The final acceptance date (day) unless performance, establishment and maintenance periods occur. In the case of performance, establishment and maintenance periods, completion shall be considered when all work is complete and accepted except for performance, establishment and maintenance periods, with time computed to the suspension of time charges for the acceptance process.
- **Substantial Completion of Work** - The date (day) when all project work (or the work for a specified milestone or phase) requiring lane or shoulder closures or obstructions is completed, and traffic is following the lane arrangement as shown on the plans for the finished roadway (or the specified milestone or phase of work); all pavement construction and resurfacing are complete; and traffic control devices and pavement markings are in their final position (or as called for on the plans for the specified milestone of work). The Engineer may make an exception for permanent pavement markings provided the lack of markings does not cause a disruption to traffic flow or an unsafe condition for the traveling public, and work zone pavement markings are in place.

When A + B Bidding provisions are included in the Contract, the B working days bid will be considered as the time allowed for completion, contract or substantial as applicable. In addition, the plans will show either the number of working days or a specific date for the purposes of computing substantial completion incentives or disincentives.

Time change adjustments will be made in accordance with the schedule required to meet Article 8.1, "Prosecution of Work" and Article 8.2, "Progress Schedules," the proposal, and the plans. For Contracts with milestone dates, time charges for the completion incentive will not be adjusted for weather, weekends, holidays, suspension of contract time; utility, right of way, or railroad issues; catastrophic events; or any other unforeseeable event not under the control of the Department.

Time charges for completion disincentives may be adjusted by the Engineer when;

- work, under the control of the Department, such as extension of limits or changes in scope, change the actual duration of completion,
- delays occur due to unadjusted utilities or unclear right-of-way when clearance is the responsibility of the Department, or
- catastrophic events occur, such as a declared state of emergency or natural disaster, if the event directly affects the Contractor's prosecution.

**A. No Excuse Incentives.** When shown on the plans and in accordance with the Contract, the Department will pay a no excuse incentive for the early Contract completion or substantial completion of work under the number of working days stipulated in the Contract. The maximum number of working days used in computing the credit will be 30 days for each milestone and Contract completion incentive unless otherwise shown in the Contract. The amount of the credit will be added to money due or to become due to the Contractor.

**1. Early Contract Completion Incentive.** The incentive will be based on the difference between the actual early Contract completion days and the Contract completion days in the Contract. The difference will then be multiplied by the daily contract administration liquidated damage value shown in the proposal.

**2. Early Substantial Completion of Work Incentive.** The incentive will be based on the differences between the actual early substantial completion of work and the Contract days allowed to substantially complete the work (or the specified milestone or phase of work). The difference will then be multiplied by the daily road-user cost values specified for substantial Contract completion (or road-user cost specified for the corresponding milestone or phase of work).

**B. Disincentives for Failure to Substantially Complete Work on Time.** When shown on the plans and in accordance with the Contract, failure to substantially complete the work (or specified milestone or phase of work) within the established number of working days

will result in the assessment of disincentives using the daily road-user cost shown

on the plans for each working day in excess of those allowed. The road-user cost disincentive deductions will be in addition to any Contract administration liquidated damages, in accordance with Article 8.5, "Failure to Complete Work on Time." The amount of the disincentive will be deducted from money due or to become due to the Contractor. The road-user cost disincentives will be assessed not as a penalty, but for added expense incurred by the traveling public.

**SPECIAL PROVISION**  
**TO**  
**SPECIAL SPECIFICATION**  
**4116--001**  
**Soil Nail Anchors**

For this project, Special Specification 4116, "Soil Nail Anchors," is hereby amended with respect to the clauses cited below, and no other clauses or requirements of this Item are waived or changed hereby.

**Section 2 (1), Materials – Hydraulic Cement Concrete** is supplement by the following:

The grout mix shall have a minimum water/cement ratio of 0.4.

When a sand cement mixture is used for grouting soil nail anchors, the grout mixture shall have a minimum slump flow of 20-inches. The slump flow of the grout shall be tested in accordance with ASTM C 1611-Test Method for Slump Flow of Self-Consolidating Concrete.

The need for stiffer grout may arise when the hollow-stem auger drilling method is used or it is desired to control leakage of grout into highly permeable granular soils or highly fractured rock. In these instances the Engineer may waive the requirements of slump flow testing.

**Section 4 Construction, (3) Soil Nail Anchor Tests** is supplement by the following:

When shown in the plans, Proof Testing of production nails shall be conducted. The number, length and target load of nail to be proof loaded must be satisfied and tested according to the following criteria:

The Engineer shall determine the locations of each proof load nail after production nail installation has been completed and prior to application of pneumatically placed concrete temporary facing. Production proof test nails shall be completely grouted with the pneumatically placed concrete sufficiently voided around the nail head to allow free nail movement.

Proof nail loading sequence shall follow that outlined for Test Anchors.

Proof Test Nail Acceptance Criteria:

The total creep movement is less than 0.04" during the final 10 minute reading increment. If movement exceeds this value, the Engineer may require an additional hold period of up to 60 minutes with a 0.08" total creep movement maximum including the movement from the original 10 minute hold.

**Section 5 Measurement** is supplement by the following:

Soil nail anchor proof tests are subsidiary to this Item.

**SPECIAL PROVISION**  
**TO**  
**SPECIAL SPECIFICATION**  
**4118--001**  
**Rock Nail Anchors**

For this project, Special Specification 4118, "Rock Nail Anchors," is hereby amended with respect to the clauses cited below, and no other clauses or requirements of this Item are waived or changed hereby.

**Section 2 (1), Materials – Hydraulic Cement Concrete** is supplement by the following:

The grout mix shall have a minimum water/cement ratio of 0.4.

When a sand cement mixture is used for grouting rock nail anchors, the grout mixture shall have a minimum slump flow of 20-inches. The slump flow of the grout shall be tested in accordance with ASTM C 1611-Test Method for Slump Flow of Self-Consolidating Concrete.

The need for stiffer grout may arise when the hollow-stem auger drilling method is used or it is desired to control leakage of grout into highly permeable granular soils or highly fractured rock. In these instances the Engineer may waive the requirements of slump flow testing.

**Section 4 Construction, (3) Rock Nail Anchor Tests** is supplement by the following:

When shown in the plans, Proof Testing of production nails shall be conducted. The number, length and target load of nail to be proof loaded must be satisfied and tested according to the following criteria:

The Engineer shall determine the locations of each proof load nail after production nail installation has been completed and prior to application of pneumatically placed concrete temporary facing. Production proof test nails shall be completely grouted with the pneumatically placed concrete sufficiently voided around the nail head to allow free nail movement.

Proof nail loading sequence shall follow that outlined for Test Anchors.

Proof Test Nail Acceptance Criteria:

The total creep movement is less than 0.04" during the final 10 minute reading increment. If movement exceeds this value, the Engineer may require an additional hold period of up to 60 minutes with a 0.08" total creep movement maximum including the movement from the original 10 minute hold.

**Section 5 Measurement** is supplement by the following:

Rock nail anchor proof tests are subsidiary to this Item.



## **SPECIAL SPECIFICATION**

**7522**

### **Prefabricated Soil Drainage Mats**

- 1. Description.** This Item shall govern for a polymer core covered on one side by a suitable filter fabric and shall be placed as shown on project plans or as directed by the Engineer. The Contractor shall furnish all necessary labor, equipment, and materials and perform all operations necessary for the installation of prefabricated soil drainage mats in accordance with the details shown on the plans and with the requirements of this specification.

- 2. Material Requirements.**

- A. Physical Requirements.** Filter fabric shall conform to the requirements of Departmental Materials Specification DMS-6200, "Filter Fabric". The filter fabric shall be uniformly bonded to the core to prevent fabric intrusion into the core channels during backfilling.

The drain core shall provide substantial support for the filter fabric and provide an adequate waterway for efficient hydraulics. For walls with a low risk to exposure to gasoline, a High Impact Polystyrene drain core will be permitted. For walls with a high risk to gasoline exposure, the drain core shall be inert to gasoline and a Polystyrene drain core will not be permitted.

The drain core shall have a compressive strength of 4000 psf minimum when tested in accordance with ASTM D 1621 (Procedure A). The core shall have a minimum overall thickness of 0.300 in. The core shall permit unobstructed flow through a minimum of 50% of the geocomposite surface in contact with the soil backfill. The geocomposite surface is defined as the combined fabric/polymer plane separating the soil from the innermost water flow channel.

- B. Packaging Requirement.** The soil drainage mat shall be standard uniform sheets of specified length, width and number. Mats shall be packaged in a suitable wrapper to protect the mat from damage due to ultraviolet light and moisture during normal storage and handling.
- C. Identification Requirement.** Each package shall be labeled or marked in such a manner that the information for sample identification and other quality control purposes can be read from the label without opening the packaging. Each package shall be identified by the manufacturer with the number and dimensions of mats enclosed.

- 3. Construction Methods.** Beginning at the bottom of the excavation, position the panel with the filter fabric toward the soil.

During assembly, the panels shall be held firmly in place by anchors, mastic adhesive or similar method as approved by the Engineer. Securing pins shall not be driven through water stops or waterproofing membrane.

Panels shall be placed with no space between adjacent panels. Overlapping of interlocking panels will be permitted but not required. A minimum of 6 in. of filter fabric overlap will be required between adjacent panels. Fabric overlap shall be in the direction of water flow.

The filter fabric shall be wrapped under the exposed ends of the drainage core to prevent soil migration into the core.

Where drainage mat terminates in filter material, the end shall extend into the filter material a minimum of 6 in. and be no closer than 3 in. from the edge of the filter material.

Where drain pipe is indicated, place the drain pipe next to the core and wrap the fabric around the pipe and tuck it securely behind the core. The fabric shall overlap the bottom of the core by a minimum of 6 in.

- 4. Measurement and Payment.** No direct measurement and payment will be made for the work performed or the equipment and materials to be furnished under this Item. Payment for all work and materials shall be considered subsidiary to the various bid items of which the mat is a part as required by the plans.